

PX 103

From: Patrick Griffin [REDACTED]@ripple.com>
 To: Brad Garlinghouse
 CC: [REDACTED]
 Sent: 4/21/2017 1:27:11 PM
 Subject: Susan summary

Hi Brad,

Call and meeting notes for Susan Athey and [REDACTED] are captured at the top of page 4 [here](#). I've included notes from Susan's meeting below.

My takeaways: Susan agrees that there is a supply perception issue for speculators. Susan wants to make sure we have enough XRP on hand for lending and our cash flow needs but that the two needs can be decoupled: a pool for lending and a pool for cash flow. We debated a little bit the need for speculators at all, her point was that if payments move through XRP then we don't care about speculators. My point was that that will be hard without a liquid market to begin with, which will need speculators as a first step.

We're working on a proposal over the weekend for you to review on Monday or Tuesday.

Patrick

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Patrick Griffin
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Susan Athey

- Agreement that supply uncertainty is an issue for speculation
- Level set on Ripple Inc. needs for XRP
 - Cash flow
 - Lending for liquidity
 - Business deals
- Business deals are unaffected by lock up (can still pledge locked-up XRP), so just focus on cash needs and liquidity needs
 - Cash needs are straightforward (more below). Just look at historical min/max/avg.
 - Liquidity needs are less clear.
 - Set aside scenario where the escrow is so successful at driving liquidity that we no longer need to lend it out with incentives, etc.
 - We need enough XRP on hand to loan out, and potentially in large amounts.
 - Loaning XRP does not impact supply because whatever is loaned gets returned.
 - Challenge: can we devise an arrangement for the portion of XRP we want to lend that has the perception of a lock up but can still be loaned in large amounts?
 - Suggestion: set aside a large amount of XRP for the sole purpose of lending. Consider a dedicated entity that can only lend XRP.
 - Editorial: we have ~64B XRP. Set aside 4B for the sole purpose of lending.
- Challenged the premise that speculators are a necessary player for XRP's journey to an institutional market
 - Susan's point was that if we can get payments moving through XRP than that should drive liquidity
 - Editorial: we've been trying this but what we increasingly believe is that there is a crawl, walk, run to driving XRP adoption and the first crawl is getting XRP traded by crypto-enthusiasts. The scenario here suggests that banks, msbs, and market makers are ready to take xrp on balance sheet and trade with it and that the 'open market' liquidity is not very important.
- Regarding refinements to the lock-up mechanics:
 - Set aside a dedicated pool of XRP for lending
 - Add two layers of logic for the XRP smart contracts:
 - Existing: time-based cap per month (i.e., 1B XRP per month)

- New: USD cap: So if the price relative to USD goes up, the restriction tightens and we sell less XRP to achieve the USD target, but if the price falls we can only sell up to the 'Existing' XRP cap each month.
- Editorial: I like the lending idea. It makes a ton of sense. I think the USD cap is difficult to enforce because a.) we do not have that functionality and b.) it's more restricting than the previous proposal.

Capital Solutions for XRP

Target Advisor

Seeking specialists who structure debt and equity for private companies in emerging sectors and other areas that require unique capital solutions. We are talking with investment banking and capital solutions experts with backgrounds in private equity, debt financing, and corporate financing. In the pipeline:

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Timing

Formalize POV and recommendation for escrow plan before the end of April.

Background

Given the recent growth and liquidity of XRP and it's impact on our balance sheet (~\$2B mark-to-market), we are seeking to understand how we can leverage the asset to punch above our weight and hunt down acquisition targets.

To strengthen XRP liquidity in the short term, we are working through a program to time release our XRP holdings (a fixed allotment each month on a rolling basis). A detailed spec of how this works is [here](#). This is designed to eliminate a perceived 'supply risk' preventing new money from entering XRP markets to grow XRP liquidity.

Objective

Balance the short term need to build deeper liquidity with the longer term need for balance sheet flexibility (i.e., to structure maximized credit/m&a deals). We want to understand how the time-release escrow will impact our balance sheet and our flexibility to structure M&A deals or secure credit down the road when XRP is more liquid. This likely won't be an issue for at least another 2 years. More generally, we also want to understand it's impact on our enterprise value and exit scenarios (IPO or acquisition).

Questions:

- How will the time-release mechanism impact the valuation of our total XRP assets? Is there a model we can use?
- What are the necessary conditions for XRP to be a source of collateral to raise debt?
 - XRP volatility?
 - XRP hedging liquidity?
 - Liquidity to resell the loan?
- How will the time-release mechanism influence potential debt terms?
- Impact to enterprise value generally in IPO (or potentially by an acquiror)
 - Does a schedule like this help or hurt?
 - If we go down path of needing to do forward sale agreements against future distributions because we have maxed out on a monthly limit, does that increased complexity on top of having virtual currency result in negative perception by investors / scare them away due to too much financial engineering?
- Complexity like this can definitely turn investors away (on top of the virtual currency aspect). How should we think about this (solar leasing is a good example)?
- Other:

- Would you be a reference to media?
- Can you recommend anyone to join our team to focus on these challenges full time?

Notes

Analyst

- On equity valuation model
 - Valued based on liquidity which will be a function of volatility and depth of order book
 - Would anchor any model using a trailing 12 month average VWAP
- On credit pricing model
 - Would anchor any model using a trailing 12 month average VWAP
 - Lenders must be able to lock in a spread
 - They can do that if XRP meets the following criteria:
 - Hedging: most important of all, can the lender hedge the volatility of XRP? are futures/forward markets deep enough to lock in rates cost-effectively?
 - Volatility: is it predictable over a 12-month period?
 - Risk of repayment: is Ripple's opex and cash flow predictable enough to borrow against
 - Market for the loan: can the lender turn around and sell his loan to another investor to offload the risk?
- Regarding structure of a possible loan
 - Will likely shadow the structure of the escrow, so we will lose some flexibility.
 - Likely would require coupon payments at the end of every escrow period (i.e., monthly) to take down risk whenever possible
 - Lender will likely want full repayment by the end of the escrow cycle. So, the length of the loan will likely be the length of the escrow cycle. The longer the repayment cycle, the more expensive the loan.
- Consider

Managing Director of Corporate Finance

- On risk of XRP for financing
 - Echoed similar points made by Soros regarding hedging, volatility, and liquidity criteria and preconditions for use XRP as collateral
 - Made the point that we would not be able to finance anything on this today, way too early
 - Also, has not heard of anyone trying to finance a loan with digital assets as collateral
- On how discounting works
 - No matter how it's packaged, an illiquid asset will face a steep discount. By time-releasing the XRP, investors will simply replace a discount for liquidity with a discount for the future time-value of money.
 - The question to ask then is how far out should you tie-up the XRP
 - The length of time should correspondent with investor expectations for ROI timing. That will be the same for debt and for equity.
 - Typical payout timeframes: Venture is 5-10 years, Private equity is 3-5 years. They did not think 5 years was unreasonable.

- On precedent for pricing
 - Considers XRP in escrow as an 'undeveloped' asset
 - Analogous to mining and commodities industry where a company has mineral/land rights to unmined resources ('assets still in the ground')
 - Analysts use discounted cash flow models to price the undeveloped assets by making assumptions on:
 - Future Price
 - Time to unearth
 - Cost to unearth
 - XRP would be the same except the 'cost to unearth' would be zero. Reiterating the point, the real challenge will just be how to forecast the price given volatility and illiquidity.
- On precedent for lock-ups
 - Mentioned IPO lock-ups where founders lock up their shares in escrow and commit to selling no more than a capped percentage each quarter (3-5%).
 - This is challenging for Ripple to do because IPO lock-ups are enforceable by law where XRP is not (or at least it would be a regulatory minefield to make those kinds of commitments and legal maneuvers, and then for what benefit?);
 - So the crypto lock-up may be a viable alternative
- Potential lender universe
 - Shared a great list of possible lenders for something like this broken out by: Venture Lenders, Commercial Banks, and Specialty Lenders/Credit Funds/Other.
 - See here [REDACTED]
- More esoteric, but [REDACTED] asked questions about how settlement can be defined with a digital asset and how we can legally commit to delivery of the asset or the escrowed-asset in the event of a sale or transfer.
 - Interested in how UCC codes that define delivery and settlement of fixed income, securities, cash, commodities, and derivatives applies here
- Takeaways:
 - Investors will discount for illiquidity or time. I think a time-based discount in the long run is less abstract (e.g., we can even point to historical cash flow, point being that there are more data points) than a liquidity discount and for that reason will be easier for investors to do their financial engineering.
 - We need to align on what makes a reasonable investor horizon. 5 years seems pretty right for something with XRP's liquidity profile (more analogous to venture and private equity funds than to stocks and bonds).
 - We need to look at financial models for mineral rights sales in the mining industry

[REDACTED] Head of Capital Markets and Credit Asset Management at [REDACTED]
(formerly at [REDACTED] now advisor at [REDACTED])

- Briefed on the objective and challenge
- Craig immediately compared this with an IPO lock up
- He's thinking about this now and will revert with thoughts next week.

Other questions for us to consider internally (per [REDACTED])

With a \$2Bn asset on the balance sheet I think we need to think about multiple objectives and implications:

Fundraising

- Impact to future fundraising rounds - I think Brad suggested there might be creative ways we can structure this / add XRP interests and leverage in our Series C or future rounds - not sure what that would look like (warrants, upside, etc)?

Role as Fed Reserve for virtual currency

- More on the capital markets side - totally understand that providing clarity helps and reducing supply overhang concerns is required
- However - not sure that means we have to lock everything up or just be better at messaging and be consistent. The Fed is able to provide clarity while maintaining flexibility. We are giving up our role as "the Fed" of XRP and perhaps a bigger role as the central bank for the best virtual currency in the world. Right now we would be treating this just as an asset with a disposition schedule - maybe we're thinking too small.
- I don't have any idea what our role could be like in the future and how we might want to manage our currency if we take on the US Dollar. We might be limiting our role in the global currency system by putting this in place. Maybe talking to a Fed watcher / Central Bank expert can help

Securing Credit against XRP to get loans

- If we want to get credit against XRP - we'd probably have to set aside XRP in an escrow account, overcollateralize in XRP to 110% of the loan, for example, and top up for mark to market.
- If we aren't able to set aside the full amount due to our escrow monthly limitations, selling forward doesn't help. A lot of revolving credit lines will only allow you to borrow based on assets currently committed
- Not sure we'd actually be able to do this anytime soon. Most banks won't even manage our cash and do Treasury operations for us because they can't get involved with companies with virtual currency

Making acquisitions with XRP as part of the consideration

- Probably similar to any negotiation you've done on BD or R3, etc. You have a better sense than I do on this - if we were to close on a target and compensate the team being acquired - they would want cash, equity and XRP?

Employee compensation - internal consideration

- We aren't there now but if IRS / Accounting Board / SEC provides clarity on virtual currency treatment, we may want to offer employees compensation in XRP (on a much broader scale than we do today)
- Super early but kicking off discussions on this - not sure this will go anywhere due to the complexity but could see that maybe changing 5-10 years from now

Use cases for Internet of Value - internal discussion

- To [REDACTED] point that it was impossible to know the use cases of the internet in the age of the telegram, are there other uses of XRP that would come about as the internet of value that we can't imagine today?
- I agree with your point that we need to distribute less for cash flow as the asset appreciates - but I'm not sure we can anticipate our needs of XRP in a completely different world order around payments. Might be worth a conversation with [REDACTED]